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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,987	03/26/2004	Ornan Gerstel	CISCP852	9610
26541	7590	05/17/2005	EXAMINER	
RITTER, LANG & KAPLAN P.O. BOX 2448 SARATOGA, CA 95070			BOAKYE, ALEXANDER O	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,987

Applicant(s)

GERSTEL, ORNAN

Examiner

ALEXANDER BOAKYE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-25 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,9,10,12 and 13 is/are rejected.
- 7) ☒ Claim(s) 3,7,8,11 and 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/14/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 9, 10, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugawara et al. (US Patent # 6,785,225).

Regarding claim 1, Sugawara teaches a network that employs a hierarchical digital transmission standard (column 9, lines 41-50), a method of operating a node to handle link failure, the method comprising: detecting failure of a data communication link at a second hierarchical layer, wherein the link is employed by a plurality of paths defined at a first hierarchical layer above the second hierarchical layer (column 9, lines 21-28); signaling local repair of the failure using overhead information of the second hierarchical layer (column 10, lines 63-66); and switching only protected ones of the plurality of paths to alternate routes through the network to avoid the failure(column 9, lines 24-28).

Regarding claim 2, Sugawara teaches that the network comprises a mesh network (column 9, lines 63-64).

Regarding claim 5, one skilled in the art will recognize that the claimed first hierarchical layer comprises STS-1 communications is inherent in synchronous transport network while the second hierarchical layer comprises OC-n communications is also inherently in synchronous optical network evidenced by Sugawara (column 9, lines 41-50 ; typical communication networks may transmit information in one or more signal formats such as an optical carrier level-n, OC-n format and synchronous transport signal level-n format STS-n).

Regarding claims 9, Sugarawa teaches a network that employs a hierarchical digital transmission standard (column 9, lines 41-50), apparatus for operating a node to handle link failure, the apparatus comprising: means for detecting failure of a data communication link at a second hierarchical layer, where the link is employed by a plurality of paths defined at a first hierarchical layer above the second hierarchical layer (column 9, lines 21-28); and means for switching only protected ones of the plurality of paths to alternate routes through the network to avoid the failure (column 9, lines 24-28).

Regarding claim 10, Sugarawa teaches that the network comprises a mesh network (column 9, lines 63-64).

Regarding claim 13, one skilled in the art will recognize that the claimed first hierarchical layer comprises STS-1 communications is inherent in synchronous transport network while the second hierarchical layer comprises OC-n communications is also inherently in synchronous optical network evidenced by Sugawara (column 9, lines 41-50; typical communication networks may transmit information in one or more

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signal formats such as an optical carrier level-n format OC-n and synchronous transport signal level-n format STS-n).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara et al. (US Patent # 6,785,225) in view of Betts (US Patent # 6,810,011).

Regarding claim 4, Sugawara teaches that at least one of the plurality of paths is protected (column 9, lines 51-57). Sugawara differs from the claimed invention in that Sugawara does not disclose that at least one of the plurality of paths is unprotected.

CP However, ^{CP} ~~Swinkels~~ ^{Betts} from the same field of endeavor discloses that at least one of the plurality of paths is unprotected (column 8, lines 48-58). One of ordinary skill in the art would have been motivated to incorporate unprotected path in order to configure network. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate unprotected path such as the one taught by Betts into the communication network of Sugawa with the motivation being that it provides capability for the system to configure the network easily.

Regarding claim 12, Sugawara teaches that at least one of the plurality of paths is protected (column 9, lines 51-57). Sugawara differs from the claimed invention in that Sugawara does not disclose that at least one of the plurality of paths is unprotected.

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cl However, ^{Belts}~~Swinkels~~ from the same field of endeavor discloses that at least one of the plurality of paths is unprotected (column 8, lines 48-58). One of ordinary skill in the art would have been motivated to incorporate unprotected path in order to configure network. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate unprotected path such as the one taught by Belts into the communication network of Sugawa with the motivation being that it provides capability for the system to configure the network easily.

Allowable Subject Matter

3. Claims 3, 6, 7, 8, 11, 14, 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 17-24 and 25 are allowable.

The following is an examiner's statement of reasons for allowance: As to claims 17-24, the prior art of record does not teach a memory storing instructions for execution by the processor, the instructions comprising: code that causes detection of failure of a data communication link defined at second hierarchical layer, wherein the link is employed by a plurality of paths defined at a first hierarchical layer above the second hierarchical layer; code that cause signaling of local repair of the failure using overhead information of the second hierarchical layer; and code that causes switching of only protected ones of the plurality of paths to alternate routes through the network to avoid

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the failure. As to claim 25, the prior art of record does not teach code that causes detection of failure of a data communication link defined at second hierarchical layer, wherein the link is employed by a plurality of paths defined at a first hierarchical layer above the second hierarchical layer; code that causes signaling of local repair of the failure using overhead information of the second hierarchical layer below the first hierarchical layer; code that causes switching of only protected ones of the plurality of paths to alternate routes through the network to avoid the failure ; and a computer-readable storage medium that stores the codes.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6: 00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The fax number is (703) 872-9306. Any inquiry of general nature or relating to the status of this application or

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proceeding should be directed to Electronic Business Center number 866-217-9197 and 703-305-3028.

Alexander Boakye

Patent Examiner

AB

5/10/05


CHI PHAM
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